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SEQUENCE LISTING

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<120> CRYSTAL STRUCTURE OF cPLA2, AND METHODS OF IDENTIFYING AGONISTS AND ANTAGONISTS USING SAME

<130> GFN-5341

<140> 09/250,083
<141> 1999-02-15

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<170> PatentIn Ver. 2.0

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tcc cac aag ttt acg gta gtg gtg tta cgt gcc acc aaa gtg aca aag   96
Ser His Lys Phe Thr Val Val Val Leu Arg Ala Thr Lys Val Thr Lys
             20                  25                  30

ggg gcc ttt ggt gac atg ctt gat act cca gat ccc tat gtg gaa ctt   144
Gly Ala Phe Gly Asp Met Leu Asp Thr Pro Asp Pro Tyr Val Glu Leu
         35                  40                  45

ttt atc tct aca acc cct gac agc agg aag aga aca aga cat ttc aat   192
Phe Ile Ser Thr Thr Pro Asp Ser Arg Lys Arg Thr Arg His Phe Asn
     50                  55                  60

aat gac ata aac cct gtg tgg aat gag acc ttt gaa ttt att ttg gat   240
Asn Asp Ile Asn Pro Val Trp Asn Glu Thr Phe Glu Phe Ile Leu Asp
 65                  70                  75                  80

cct aat cag gaa aat gtt ttg gag att acg tta atg gat gcc aat tat   288
Pro Asn Gln Glu Asn Val Leu Glu Ile Thr Leu Met Asp Ala Asn Tyr
                 85                  90                  95

gtc atg gat gaa act cta ggg aca gca aca ttt act gta tct tct atg   336
Val Met Asp Glu Thr Leu Gly Thr Ala Thr Phe Thr Val Ser Ser Met
            100                 105                 110

aag gtg gga gaa aag aaa gaa gtt cct ttt att ttc aac caa gtc act   384
Lys Val Gly Glu Lys Lys Glu Val Pro Phe Ile Phe Asn Gln Val Thr
        115                 120                 125
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gaa atg gtt cta gaa atg tct ctt gaa gtt tgc tca tgc cca gac cta   432
Glu Met Val Leu Glu Met Ser Leu Glu Val Cys Ser Cys Pro Asp Leu
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cga ttt agt atg gct ctg tgt gat cag gag aag act ttc aga caa cag   480
Arg Phe Ser Met Ala Leu Cys Asp Gln Glu Lys Thr Phe Arg Gln Gln
145                 150                 155                 160

aga aaa gaa cac ata agg gag agc atg aag aaa ctc ttg ggt cca aag   528
Arg Lys Glu His Ile Arg Glu Ser Met Lys Lys Leu Leu Gly Pro Lys
                165                 170                 175

aat agt gaa gga ttg cat tct gca cgt gat gtg cct gtg gta gcc ata   576
Asn Ser Glu Gly Leu His Ser Ala Arg Asp Val Pro Val Val Ala Ile
            180                 185                 190

ttg ggt tca ggt ggg ggt ttc cga gcc atg gtg gga ttc tct ggt gtg   624
Leu Gly Ser Gly Gly Gly Phe Arg Ala Met Val Gly Phe Ser Gly Val
        195                 200                 205

atg aag gca tta tac gaa tca gga att ctg gat tgt gct acc tac gtt   672
Met Lys Ala Leu Tyr Glu Ser Gly Ile Leu Asp Cys Ala Thr Tyr Val
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gct ggt ctt tct ggc tcc acc tgg tat atg tca acc ttg tat tct cac   720
Ala Gly Leu Ser Gly Ser Thr Trp Tyr Met Ser Thr Leu Tyr Ser His
225                 230                 235                 240

cct gat ttt cca gag aaa ggg cca gag gag att aat gaa gaa cta atg   768
Pro Asp Phe Pro Glu Lys Gly Pro Glu Glu Ile Asn Glu Glu Leu Met
                245                 250                 255

aaa aat gtt agc cac aat ccc ctt tta ctt ctc aca cca cag aaa gtt   816
Lys Asn Val Ser His Asn Pro Leu Leu Leu Leu Thr Pro Gln Lys Val
            260                 265                 270

aaa aga tat gtt gag tct tta tgg aag aag aaa agc tct gga caa cct   864
Lys Arg Tyr Val Glu Ser Leu Trp Lys Lys Lys Ser Ser Gly Gln Pro
        275                 280                 285

gtc acc ttt act gat atc ttt ggg atg tta ata gga gaa aca cta att   912
Val Thr Phe Thr Asp Ile Phe Gly Met Leu Ile Gly Glu Thr Leu Ile
    290                 295                 300

cat aat aga atg aat act act ctg agc agt ttg aag gaa aaa gtt aat   960
His Asn Arg Met Asn Thr Thr Leu Ser Ser Leu Lys Glu Lys Val Asn
305                 310                 315                 320

act gca caa tgc cct tta cct ctt ttc acc tgt ctt cat gtc aaa cct  1008
Thr Ala Gln Cys Pro Leu Pro Leu Phe Thr Cys Leu His Val Lys Pro
                325                 330                 335

gac gtt tca gag ctg atg ttt gca gat tgg gtt gaa ttt agt cca tac  1056
Asp Val Ser Glu Leu Met Phe Ala Asp Trp Val Glu Phe Ser Pro Tyr
            340                 345                 350

gaa att ggc atg gct aaa tat ggt act ttt atg gct ccc gac tta ttt  1104
Glu Ile Gly Met Ala Lys Tyr Gly Thr Phe Met Ala Pro Asp Leu Phe
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gga agc aaa ttt ttt atg gga aca gtc gtt aag aag tat gaa gaa aac  1152
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Gly Ser Lys Phe Phe Met Gly Thr Val Val Lys Lys Tyr Glu Glu Asn
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ccc ttg cat ttc tta atg ggt gtc tgg ggc agt gcc ttt tcc ata ttg   1200
Pro Leu His Phe Leu Met Gly Val Trp Gly Ser Ala Phe Ser Ile Leu
385                 390                 395                 400

ttc aac aga gtt ttg ggc gtt tct ggt tca caa agc aga ggc tcc aca   1248
Phe Asn Arg Val Leu Gly Val Ser Gly Ser Gln Ser Arg Gly Ser Thr
                405                 410                 415

atg gag gaa gaa tta gaa aat att acc aca aag cat att gtg agt aat   1296
Met Glu Glu Glu Leu Glu Asn Ile Thr Thr Lys His Ile Val Ser Asn
            420                 425                 430

gat agc tcg gac agt gat gat gaa tca cac gaa ccc aaa ggc act gaa   1344
Asp Ser Ser Asp Ser Asp Asp Glu Ser His Glu Pro Lys Gly Thr Glu
        435                 440                 445

aat gaa gat gct gga agt gac tat caa agt gat aat caa gca agt tgg   1392
Asn Glu Asp Ala Gly Ser Asp Tyr Gln Ser Asp Asn Gln Ala Ser Trp
    450                 455                 460

att cat cgt atg ata atg gcc ttg gtg agt gat tca gct tta ttc aat   1440
Ile His Arg Met Ile Met Ala Leu Val Ser Asp Ser Ala Leu Phe Asn
465                 470                 475                 480

acc aga gaa gga cgt gct ggg aag gta cac aac ttc atg ctg ggc ttg   1488
Thr Arg Glu Gly Arg Ala Gly Lys Val His Asn Phe Met Leu Gly Leu
                485                 490                 495

aat ctc aat aca tct tat cca ctg tct cct ttg agt gac ttt gcc aca   1536
Asn Leu Asn Thr Ser Tyr Pro Leu Ser Pro Leu Ser Asp Phe Ala Thr
            500                 505                 510

cag gac tcc ttt gat gat gat gaa ctg gat gca gct gta gca gat cct   1584
Gln Asp Ser Phe Asp Asp Asp Glu Leu Asp Ala Ala Val Ala Asp Pro
        515                 520                 525

gat gaa ttt gag cga ata tat gag cct ctg gat gtc aaa agt aaa aag   1632
Asp Glu Phe Glu Arg Ile Tyr Glu Pro Leu Asp Val Lys Ser Lys Lys
    530                 535                 540

att cat gta gtg gac agt ggg ctc aca ttt aac ctg ccg tat ccc ttg   1680
Ile His Val Val Asp Ser Gly Leu Thr Phe Asn Leu Pro Tyr Pro Leu
545                 550                 555                 560

ata ctg aga cct cag aga ggg gtt gat ctc ata atc tcc ttt gac ttt   1728
Ile Leu Arg Pro Gln Arg Gly Val Asp Leu Ile Ile Ser Phe Asp Phe
                565                 570                 575

tct gca agg cca agt gac tct agt cct ccg ttc aag gaa ctt cta ctt   1776
Ser Ala Arg Pro Ser Asp Ser Ser Pro Pro Phe Lys Glu Leu Leu Leu
            580                 585                 590

gca gaa aag tgg gct aaa atg aac aag ctc ccc ttt cca aag att gat   1824
Ala Glu Lys Trp Ala Lys Met Asn Lys Leu Pro Phe Pro Lys Ile Asp
        595                 600                 605

cct tat gtg ttt gat cgg gaa ggg ctg aag gag tgc tat gtc ttt aaa   1872
Pro Tyr Val Phe Asp Arg Glu Gly Leu Lys Glu Cys Tyr Val Phe Lys
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    610                 615                 620

ccc aag aat cct gat atg gag aaa gat tgc cca acc atc atc cac ttt   1920
Pro Lys Asn Pro Asp Met Glu Lys Asp Cys Pro Thr Ile Ile His Phe
625                 630                 635                 640

gtt ctg gcc aac atc aac ttc aga aag tac aag gct cca ggt gtt cca   1968
Val Leu Ala Asn Ile Asn Phe Arg Lys Tyr Lys Ala Pro Gly Val Pro
                645                 650                 655

agg gaa act gag gaa gag aaa gaa atc gct gac ttt gat att ttt gat   2016
Arg Glu Thr Glu Glu Glu Lys Glu Ile Ala Asp Phe Asp Ile Phe Asp
            660                 665                 670

gac cca gaa tca cca ttt tca acc ttc aat ttt caa tat cca aat caa   2064
Asp Pro Glu Ser Pro Phe Ser Thr Phe Asn Phe Gln Tyr Pro Asn Gln
        675                 680                 685

gca ttc aaa aga cta cat gat ctt atg cac ttc aat act ctg aac aac   2112
Ala Phe Lys Arg Leu His Asp Leu Met His Phe Asn Thr Leu Asn Asn
    690                 695                 700

att gat gtg ata aaa gaa gcc atg gtt gaa agc att gaa tat aga aga   2160
Ile Asp Val Ile Lys Glu Ala Met Val Glu Ser Ile Glu Tyr Arg Arg
705                 710                 715                 720

cag aat cca tct cgt tgc tct gtt tcc ctt agt aat gtt gag gca aga   2208
Gln Asn Pro Ser Arg Cys Ser Val Ser Leu Ser Asn Val Glu Ala Arg
                725                 730                 735

aga ttt ttc aac aag gag ttt cta agt aaa ccc aaa gca               2247
Arg Phe Phe Asn Lys Glu Phe Leu Ser Lys Pro Lys Ala
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Ser His Lys Phe Thr Val Val Val Leu Arg Ala Thr Lys Val Thr Lys
             20                  25                  30

Gly Ala Phe Gly Asp Met Leu Asp Thr Pro Asp Pro Tyr Val Glu Leu
         35                  40                  45

Phe Ile Ser Thr Thr Pro Asp Ser Arg Lys Arg Thr Arg His Phe Asn
     50                  55                  60

Asn Asp Ile Asn Pro Val Trp Asn Glu Thr Phe Glu Phe Ile Leu Asp
 65                  70                  75                  80

Pro Asn Gln Glu Asn Val Leu Glu Ile Thr Leu Met Asp Ala Asn Tyr
                 85                  90                  95

Val Met Asp Glu Thr Leu Gly Thr Ala Thr Phe Thr Val Ser Ser Met
            100                 105                 110
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Lys Val Gly Glu Lys Lys Glu Val Pro Phe Ile Phe Asn Gln Val Thr
        115                 120                 125

Glu Met Val Leu Glu Met Ser Leu Glu Val Cys Ser Cys Pro Asp Leu
    130                 135                 140

Arg Phe Ser Met Ala Leu Cys Asp Gln Glu Lys Thr Phe Arg Gln Gln
145                 150                 155                 160

Arg Lys Glu His Ile Arg Glu Ser Met Lys Lys Leu Leu Gly Pro Lys
                165                 170                 175

Asn Ser Glu Gly Leu His Ser Ala Arg Asp Val Pro Val Val Ala Ile
            180                 185                 190

Leu Gly Ser Gly Gly Gly Phe Arg Ala Met Val Gly Phe Ser Gly Val
        195                 200                 205

Met Lys Ala Leu Tyr Glu Ser Gly Ile Leu Asp Cys Ala Thr Tyr Val
    210                 215                 220

Ala Gly Leu Ser Gly Ser Thr Trp Tyr Met Ser Thr Leu Tyr Ser His
225                 230                 235                 240

Pro Asp Phe Pro Glu Lys Gly Pro Glu Glu Ile Asn Glu Glu Leu Met
                245                 250                 255

Lys Asn Val Ser His Asn Pro Leu Leu Leu Leu Thr Pro Gln Lys Val
            260                 265                 270

Lys Arg Tyr Val Glu Ser Leu Trp Lys Lys Lys Ser Ser Gly Gln Pro
        275                 280                 285

Val Thr Phe Thr Asp Ile Phe Gly Met Leu Ile Gly Glu Thr Leu Ile
    290                 295                 300

His Asn Arg Met Asn Thr Thr Leu Ser Ser Leu Lys Glu Lys Val Asn
305                 310                 315                 320

Thr Ala Gln Cys Pro Leu Pro Leu Phe Thr Cys Leu His Val Lys Pro
                325                 330                 335

Asp Val Ser Glu Leu Met Phe Ala Asp Trp Val Glu Phe Ser Pro Tyr
            340                 345                 350

Glu Ile Gly Met Ala Lys Tyr Gly Thr Phe Met Ala Pro Asp Leu Phe
        355                 360                 365

Gly Ser Lys Phe Phe Met Gly Thr Val Val Lys Lys Tyr Glu Glu Asn
    370                 375                 380

Pro Leu His Phe Leu Met Gly Val Trp Gly Ser Ala Phe Ser Ile Leu
385                 390                 395                 400

Phe Asn Arg Val Leu Gly Val Ser Gly Ser Gln Ser Arg Gly Ser Thr
                405                 410                 415

Met Glu Glu Glu Leu Glu Asn Ile Thr Thr Lys His Ile Val Ser Asn
            420                 425                 430
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Asp Ser Ser Asp Ser Asp Asp Glu Ser His Glu Pro Lys Gly Thr Glu
        435                 440                 445

Asn Glu Asp Ala Gly Ser Asp Tyr Gln Ser Asp Asn Gln Ala Ser Trp
    450                 455                 460

Ile His Arg Met Ile Met Ala Leu Val Ser Asp Ser Ala Leu Phe Asn
465                 470                 475                 480

Thr Arg Glu Gly Arg Ala Gly Lys Val His Asn Phe Met Leu Gly Leu
                485                 490                 495

Asn Leu Asn Thr Ser Tyr Pro Leu Ser Pro Leu Ser Asp Phe Ala Thr
            500                 505                 510

Gln Asp Ser Phe Asp Asp Asp Glu Leu Asp Ala Ala Val Ala Asp Pro
        515                 520                 525

Asp Glu Phe Glu Arg Ile Tyr Glu Pro Leu Asp Val Lys Ser Lys Lys
    530                 535                 540

Ile His Val Val Asp Ser Gly Leu Thr Phe Asn Leu Pro Tyr Pro Leu
545                 550                 555                 560

Ile Leu Arg Pro Gln Arg Gly Val Asp Leu Ile Ile Ser Phe Asp Phe
                565                 570                 575

Ser Ala Arg Pro Ser Asp Ser Ser Pro Pro Phe Lys Glu Leu Leu Leu
            580                 585                 590

Ala Glu Lys Trp Ala Lys Met Asn Lys Leu Pro Phe Pro Lys Ile Asp
        595                 600                 605

Pro Tyr Val Phe Asp Arg Glu Gly Leu Lys Glu Cys Tyr Val Phe Lys
    610                 615                 620

Pro Lys Asn Pro Asp Met Glu Lys Asp Cys Pro Thr Ile Ile His Phe
625                 630                 635                 640

Val Leu Ala Asn Ile Asn Phe Arg Lys Tyr Lys Ala Pro Gly Val Pro
                645                 650                 655

Arg Glu Thr Glu Glu Glu Lys Glu Ile Ala Asp Phe Asp Ile Phe Asp
            660                 665                 670

Asp Pro Glu Ser Pro Phe Ser Thr Phe Asn Phe Gln Tyr Pro Asn Gln
        675                 680                 685

Ala Phe Lys Arg Leu His Asp Leu Met His Phe Asn Thr Leu Asn Asn
    690                 695                 700

Ile Asp Val Ile Lys Glu Ala Met Val Glu Ser Ile Glu Tyr Arg Arg
705                 710                 715                 720

Gln Asn Pro Ser Arg Cys Ser Val Ser Leu Ser Asn Val Glu Ala Arg
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Arg Phe Phe Asn Lys Glu Phe Leu Ser Lys Pro Lys Ala
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